



Aerospace Engineer



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I make computer models of Mars, and then compare them to the actual data that we get from the planet. I also do field work, which means I travel to different parts of the world to carry out my research. I recently traveled to the Canadian Arctic in order to test different ways to explore Mars, with which it shares some similarities. I tried on new space suit designs, and rode around on all-terrain vehicles to simulate being on Mars. Because I am a project manager, I also have to do a lot of organizing and paperwork!

Areas of expertise:

- Mars atmosphere
- Manned Mars exploration

How I first became interested in this profession:

I really wanted to go into music, but I thought success might depend more on how lucky I was, than on how hard I worked. One day, I wrote all the professions I could think of on pieces of paper, and I drew engineering out of a hat. Aerospace Engineering sounded interesting. I decided to stick with it, and that became my job.

What helped prepare me for this job:

Working at NASA while doing my Ph.D. work gave me an idea of what working here would be like; I also met many of the people I'd be working with in the future. Hands-on, and project oriented courses have also been very useful in preparing me to build and design.

My role models or inspirations:

One of my role models was my Ph.D. advisor, who guided me through the process of starting to work here. Another major inspiration is Albert Einstein, who had a balanced approach to science and spirituality. I am also very inspired by my religion, the Baha'i Faith; its teachings of harmony between science and religion have motivated me to do well in my work, and through my work, to make the world a better place.

My education and training:

- Ph.D. and M.S. in Aeronautics and Astronautics, Stanford University
- B.S. in Aerospace Engineering, University of Southern California

My career path:

- Eight years as a research/teaching assistant at Stanford University
- Five years as a consultant at NASA Ames
- Two years as an Aerospace Engineer at NASA Ames
- One year Co-Op at the Aerospace Corporation while an undergraduate

What I like about my job:

I like to think about how my work fits in the greater picture of human endeavor and progress. I also enjoy having a job that is exciting, and inspiring, and which allows me the freedom to do what interests me, and the flexibility to do it how and when I want to.

What I don't like about my job:

I don't like spending hours filling out forms, or doing other things that take me away from the task I'm here to do. Looking for the money to support my research, can also be time consuming and frustrating.

My advice to anyone interested in this occupation:

Be persistent. Get a good foundation in math, physics, biology, and geology. Don't lose sight of the things that inspire you, so you'll always be motivated to do your job well. Make sure to take public speaking, and technical writing courses, in order to get other people also interested in your work and ideas.